



A human health perspective on climate change: A report outlining the research needs on the human health effects of climate change. 22 April 2010

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Abstract:

The purpose of this paper is to identify research needs for all aspects of the research-to-decision making pathway that will help us understand and mitigate the health effects of climate change as well as ensure that we choose the healthiest and most efficient approaches to climate change adaptation. Recognizing the complexity of this issue, an ad hoc Interagency Working Group on Climate Change and Health (IWGCCH) assembled to develop a white paper on relevant federal research and science needs, including research on mitigation and adaptation strategies. Examples of mitigation and adaptation research needs are identified, but a comprehensive discussion of these issues is not included. These research and science needs broadly include basic and applied science, technological innovations and capacities, public health infrastructure, and communication and education. Consideration is also given to the potential structure of a federal climate change and health research agenda and the use of scientific research results for applications and decision making. The purpose of this paper is to identify research critical for understanding the impact of climate change on human health so that we can both mitigate and adapt to the environmental effects of climate change in the healthiest and most efficient ways. Although the group recognizes the global nature of climate change's impacts on human health, the primary focus of this paper is on the situation in the United States

Source:

https://www.niehs.nih.gov/health/materials/a_human_health_perspective_on_climate_change_full_report_508.pdf

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Public, Researcher

Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of

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climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Extreme Weather Event, Food/Water Quality, Food/Water Quality, Food/Water Security, Human Conflict/Displacement, Human Conflict/Displacement, Meteorological Factors, Precipitation, Sea Level Rise, Solar Radiation, Temperature, Other Exposure

Air Pollution: Allergens, Dust, Interaction with Temperature, Ozone, Particulate Matter

Extreme Weather Event: Drought, Flooding, Hurricanes/Cyclones, Landslides, Wildfires

Food/Water Quality: Biotoxin/Algal Bloom, Biotoxin/Algal Bloom, Chemical, Chemical, Chemical, Pathogen, Other Water Quality Issue

Water Quality (other): Ocean temperature; Ocean acidification

Food/Water Security: Agricultural Productivity, Fisheries, Food Access/Distribution, Livestock Productivity, Nutritional Quality

Temperature: Extreme Cold, Extreme Heat, Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Desert, Ocean/Coastal, Urban

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co-Harm (Adaption/Mitigation):

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact:

specification of health effect or disease related to climate change exposure

Cancer, Cardiovascular Effect, Dermatological Effect, Developmental Effect, Diabetes/Obesity, Infectious Disease, Injury, Mental Health/Stress, Morbidity/Mortality, Neurological Effect, Respiratory Effect, Other Health Impact

Cardiovascular Effect: Heart Attack, Stroke, Other Cardiovascular Effect

Cardiovascular Disease (other): Coronary artery disease; Cardiac dysrhythmias; Deep venous thrombosis; Pulmonary embolism

Developmental Effect: Cognitive/Neurological, Reproductive

Infectious Disease: Airborne Disease, Foodborne/Waterborne Disease, Vectorborne Disease, Zoonotic Disease

Airborne Disease: Coccidioidomycosis (Valley Fever), Influenza, Other Airborne Disease

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Airborne Disease (other): Legionellosis

Foodborne/Waterborne Disease: Campylobacteriosis, Cholera, Cryptosporidiosis, E. coli, General Foodborne/Waterborne Disease, Salmonellosis, Schistosomiasis, Vibrioses, Other Diarrheal Disease

Foodborne/Waterborne Disease (other): Viral gastroenteritis; Amoebic meningoencephalitis; MRSA

Vectorborne Disease: Flea-borne Disease, Fly-borne Disease, General Vectorborne, Mosquito-borne Disease, Tick-borne Disease

Flea-borne Disease: Murine Typhus, Plague

Fly-borne Disease: Trypanosomiasis

Mosquito-borne Disease: Dengue, Malaria, Yellow Fever

Tick-borne Disease: Ehrlichiosis, Lyme Disease

Zoonotic Disease: Anthrax, General Zoonotic Disease, Hantavirus Pulmonary Syndrome, Nipah Virus, Rabies, Tularemia, Other Zoonotic Disease

Zoonotic Disease (other): Q fever

Mental Health Effect/Stress: Mood Disorder, Stress Disorder

Respiratory Effect: Asthma, Chronic Obstructive Pulmonary Disease, Upper Respiratory Allergy, Other Respiratory Effect

Respiratory Condition (other) : Hay fever; Rhinitis; Atopic dermatitis; Legionellosis

Other Health Impact: Heat stress: Vitamin D levels

Medical Community Engagement: 

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: 

mitigation or adaptation strategy is a focus of resource


Adaptation, Mitigation

Model/Methodology: 

type of model used or methodology development is a focus of resource

Methodology

Population of Concern: A focus of content

Population of Concern: 

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Low Socioeconomic Status, Pregnant Women, Racial/Ethnic Subgroup

Other Racial/Ethnic Subgroup: African American; Hispanic

Other Vulnerable Population: Displaced populations; Disabled; Pre-existing medical conditions; Socially isolated

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Resource Type:

format or standard characteristic of resource

Research Article, Review

Resilience:

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content